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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. |
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08/919,947 08/29/97 RICHARDSON

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MMC2/0226

EXAMINER

WARD, J

ART UNIT

PAPER NUMBER

2875

DATE MAILED: 02/26/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

08/915,947

Applicant(s)

RICHARDSON

Examiner

JOHN A. WARD

Group Art Unit

2875

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- ☒ Responsive to communication(s) filed on DEC 4, 2000
- ☒ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 81-118 is/are pending in the application.
- ☐ Claim(s) _____ is/are withdrawn from consideration.
- ☐ Claim(s) _____ is/are allowed.
- ☒ Claim(s) 81-118 is/are rejected.
- ☐ Claim(s) _____ is/are objected to.
- ☐ Claim(s) _____ are subject to restriction or election requirement

Application Papers

- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119 (a)-(d).
- ☐ All ☐ Some* ☐ None of the:
 - ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____
 - ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a))

*Certified copies not received: _____

Attachment(s)

- ☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 15
- ☐ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Interview Summary, PTO-413
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Other _____

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DETAILED ACTION

1. *Claim Rejections - 35 U.S.C. § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 81, and 89-91 are rejected under 35 U.S.C. 103(a) as being unpatentable over Amstutz et al (US 4,955,044) in view of Pacholok (US 4,904,903).

4. Amstutz et al ('044) discloses in the prior art of record a lighted display case comprising of an integral frame work 16 (line 21 column 3), rear sliding doors 28 (line 23 column 3), a ballast 44 mounted to the bottom member 46 of the base portion 14 (line 49-50 column 3), a fluorescent tube socket extending downwardly from a subframe 101 (figure 19, 20), an electrical cord 36 and wiring assembly 38 (line 45-46 column 3).

5. Pacholok ('903) discloses a ballast for high intensity discharge lamps comprising of an electronic ballast having a operating voltage of 0-200 volts (line 12-20, column 5) and a frequency range below 5 kHz to 500 kHz (line 24-32, column 8).

6. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the lighted display of Amstutz et al with the electronic ballast of Pacholok

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in order to provide a low cost ballast having reduced electromagnetic and radio interference emissions as taught by Pacholok (line 10-13, column 2).

7. Claims 82-88, 92-99 are rejected under 35 U.S.C. 103(a) as being unpatentable over Amstutz et al in view of Kelman (US 2,522,044) and in further view of Seok et al (US 5,768,898)..

8. Amstutz et al ('044) discloses in the prior art of record a lighted display case comprising of an integral frame work 16 (line 21 column 3), rear sliding doors 28 (line 23 column 3), a ballast 44 mounted to the bottom member 46 of the base portion 14 (line 49-50 column 3), a fluorescent tube socket extending downwardly from a subframe 101 (figure 19, 20), an electrical cord 36 and wiring assembly 38 (line 45-46 column 3) but does not disclose the physical description of the fluorescent lamp socket or the temperature tolerance of the ballast..

9. Kelman ('044) discloses in the prior art of record a fluorescent light socket comprising of contact fingers 45 with arcuate shape of the surface area (figure 3), longitudinal connection movement with the lamp 11 (figure 1).

10. Having a hollow-cylindrical shape for accepting the pin contact of the fluorescent lamp 11 (figure 1) and covering the pin by at least 50 percent (figure 5), a split sleeve contact that connect to the lamp 43 which can either be screwed or solder (figure 6 and 11), with the pins having engage the lamp over at least 180 degree of circumferential surface of the lamp pins (line 50-53 column 3).

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11. The surface area of the electrical contacts are a design choice, along with the use of a polymer as the housing of the socket, the use of 16 gauge wire is obvious since 16 gauge wire and it's use is known in the art.

12. Seok et al discloses in the prior art a refrigerator having a fluorescent lamp for illuminating fresh food compartment comprising of a fluorescent lamp 39, and a ballast 33 (line 59-60 column 3), which is located within the refrigerated area (figure 1).

13. Therefore it have been obvious to one of ordinary skill in the art at the time the invention was made to combine the fluorescent lamp of Amstutz et al with the socket of Kelman and the temperature tolerate ballast of Seok et al in order to provide a fluorescent lamp installed in the fresh food compartment, and is turned on and off according to the opening and closing of a door as disclosed in the abstract of Seok et al ('898).

14. Claims 100-118 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoon et al (US 6,031,338) in view of Robertson (US 5,904,415).

15. Yoon et al ('338) discloses a ballast method and apparatus and coupling therefore comprising of a frame element 24, a door 22 to receive the frame element inside a refrigerated display case 20 (line 55-60, column 3). An electronic ballast 32 being located inside the mullion (line 67, column 3 - line 1-4, column 4), having an operating voltage of 95-277 volts (line 41-44, column 4), and a frequency of 80khz that is produce by the lamp driving circuit 38 (line 25-26,

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column 6). The ballast 32 has an operating temperature of -60 degrees Celsius and to 100 degrees Celsius (line 11-18, column 2).

16. Yoon et al does not disclose the cylindrical fluorescent light and socket nor the dimensions of the socket it is attached to.

17. Robertson et al ('415) discloses a fluorescent bulb connector assembly comprising of a cylindrical fluorescent lamp 300, a first and second socket 203, 204 by means of the connector 100 to hold the lamp (figure 1), along with making electrical contact with the lamp. Figure 3 disclose how the socket has hollow sections 104, 105 for engaging the pins 303, 304 on the lamp making electrical contact (45-49, column 4). The hollow section as seen in figure 3, will also cover over 50 percent of the pins on the lamp, the housing around the connector and socket 101 are made of heat resistant plastic (line 35-37, column 5), the socket 103 has electrical wires 112 that are connected to the sockets in order to provide an electrical connection between the receiving housing 203 and the socket.

18. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the ballast of Yoon that can be operable in a refrigerated unit with the fluorescent of Robertson et al, in order to provide a light source that can be use in a refrigerated display case over a given temperature range as disclosed in the abstract of Yoon et al.

19. It is old and well known in the art to use at least 16 gauge wire for providing electrical conduction to a lamp socket due to it's dimension and ability to conduct electricity. It is also old

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and well know in the art to provide a connector with the dimensions of greater than 0.07 square inch in a fluorescent T-8 bulb socket.

Response to Arguments

20.

21. Applicant's arguments filed December 24, 2000, have been fully considered but they are not persuasive. The independent claim 81 does not positively site the use of the ballast for lighting in cold conditions. Seok et al ('898) also teaches that fluorescent lamps normally operate at a temperature not less than 8 degrees Celsius without difficulty (line 57-67, column 5, and line 1-8, column 6).

22. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


23. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John A. Ward whose telephone number is (703) 305-5157.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea, can be reached on (703) 305-4939. The fax phone number for the organization where this application or proceeding is assigned is (703)

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0596.

JAW

February 14, 2001


Stephen Husar
Primary Examiner